

CLAIMS

What is claimed is:

1. A memory device comprising:

an array of memory locations implemented as bit-alterable, non-volatile memory configured as a plurality of blocks of memory locations; and control circuitry coupled with the array of memory locations to cause a block of data to be stored in the array of memory spanning a boundary between a first block of memory locations and a second block of memory locations.

2. The memory device of claim 1 wherein the control circuitry causes

a header having an indication of a memory location corresponding to the block of data to be stored within the first block of memory locations.

3. The memory device of claim 1 wherein the bit-alterable, non-

volatile memory includes cells including a thin film chalcogenide alloy material.

4. The memory device of claim 3 wherein the chalcogenide alloy

material comprises GeSbTe.

5. The memory device of claim 3 wherein the chalcogenide alloy

material is selected from the group consisting of: GaSb, InSb, InSe, Sb₂Te₃, GeTe,

Ge2Sb2Te5, InSbTe, GaSeTe, SnSb2Te4, InSbGe, AgInSbTe, (GeSn)SbTe, GeSb(SeTe), and Te81Ge15Sb2S2.

6. The memory device of claim 1 wherein the block of data comprises system data to be used during system initialization and further wherein the block of data is stored in a pre-selected location within the memory array for all initialization sequences.

7. A method comprising:
receiving data to be stored in a bit-alterable, non-volatile memory configured as a plurality of blocks of memory locations; and
causing the data to be stored as at least one data fragment that spans a boundary between a first block of memory locations and a second block of memory locations.

8. The method of claim 7 further comprising causing a header having an indication of a memory location corresponding to the data fragment to be stored within the first block of memory locations.

9. The method device of claim 7 wherein the bit-alterable, non-volatile memory includes cells including a thin film chalcogenide alloy material.

10. The method device of claim 9 wherein the chalcogenide alloy material comprises GeSbTe.

11. The method device of claim 9 wherein the chalcogenide alloy material is selected from the group consisting of: GaSb, InSb, InSe, Sb₂Te₃, GeTe, Ge₂Sb₂Te₅, InSbTe, GaSeTe, SnSb₂Te₄, InSbGe, AgInSbTe, (GeSn)SbTe, GeSb(SeTe), and Te₈Ge₁₅Sb₂S₂.

12. An article comprising a computer-readable medium having stored thereon instructions that, when executed, cause one or more processors to:

receive data to be stored in a bit-alterable, non-volatile memory configured as a plurality of blocks of memory locations; and

cause the data to be stored as at least one data fragment that spans a boundary between a first block of memory locations and a second block of memory locations.

13. The article of claim 12 further comprising instructions that, when executed, cause the one or more processors to cause a header having an indication of a memory location corresponding to the data fragment to be stored within the first block of memory locations.

14. The article device of claim 12 wherein the bit-alterable, non-volatile memory includes cells including a thin film chalcogenide alloy material.

15. The article device of claim 14 wherein the chalcogenide alloy material comprises GeSbTe.

16. The article device of claim 14 wherein the chalcogenide alloy material is selected from the group consisting of: GaSb, InSb, InSe, Sb₂Te₃, GeTe, Ge₂Sb₂Te₅, InSbTe, GaSeTe, SnSb₂Te₄, InSbGe, AgInSbTe, (GeSn)SbTe, GeSb(SeTe), and Te₈₁Ge₁₅Sb₂S₂.

17. A method comprising accessing system data during initialization of an electronic system by retrieving data from a pre-selected location in a bit-alterable, non-volatile memory without scanning multiple memory locations to locate the system data.

18. The method device of claim 17 wherein the bit-alterable, non-volatile memory includes cells including a thin film chalcogenide alloy material.

19. The method device of claim 18 wherein the chalcogenide alloy material comprises GeSbTe.

20. The method device of claim 18 wherein the chalcogenide alloy material is selected from the group consisting of: GaSb, InSb, InSe, Sb₂Te₃, GeTe,

$\text{Ge}_2\text{Sb}_2\text{Te}_5$, InSbTe , GaSeTe , SnSb_2Te_4 , InSbGe , AgInSbTe , $(\text{GeSn})\text{SbTe}$, $\text{GeSb}(\text{SeTe})$, and $\text{Te}_{81}\text{Ge}_{15}\text{Sb}_2\text{S}_2$.

21. An article comprising a computer-readable medium having stored thereon instructions that, when executed, cause one or more processors to access system data during initialization of an electronic system by retrieving data from a pre-selected location in a bit-alterable, non-volatile memory without scanning multiple memory locations to locate the system data.

22. The article device of claim 21 wherein the bit-alterable, non-volatile memory includes cells including a thin film chalcogenide alloy material.

23. The article device of claim 22 wherein the chalcogenide alloy material comprises GeSbTe .

24. The article device of claim 22 wherein the chalcogenide alloy material is selected from the group consisting of: GaSb , InSb , InSe , Sb_2Te_3 , GeTe , $\text{Ge}_2\text{Sb}_2\text{Te}_5$, InSbTe , GaSeTe , SnSb_2Te_4 , InSbGe , AgInSbTe , $(\text{GeSn})\text{SbTe}$, $\text{GeSb}(\text{SeTe})$, and $\text{Te}_{81}\text{Ge}_{15}\text{Sb}_2\text{S}_2$.

25. A system comprising:
an antenna;

a memory system coupled with the antenna, the memory system having an array of memory locations implemented as bit-alterable, non-volatile memory configured as a plurality of blocks of memory locations and control circuitry coupled with the array of memory locations to cause a block of data to be stored in the array of memory spanning a boundary between a first block of memory locations and a second block of memory locations.

26. The system of claim 25 wherein the control circuitry causes a header having an indication of a memory location corresponding to the block of data to be stored within the first block of memory locations.

27. The system of claim 25 wherein the bit-alterable, non-volatile memory includes cells including a thin film chalcogenide alloy material.

28. The system of claim 27 wherein the chalcogenide alloy material comprises GeSbTe.

29. The system of claim 27 wherein the chalcogenide alloy material is selected from the group consisting of: GaSb, InSb, InSe, Sb₂Te₃, GeTe, Ge₂Sb₂Te₅, InSbTe, GaSeTe, SnSb₂Te₄, InSbGe, AgInSbTe, (GeSn)SbTe, GeSb(SeTe), and Te₈₁Ge₁₅Sb₂S₂.